

were no reports received north of the position of this vessel, and therefore it was impossible to locate the center of the low, although from the direction of the wind, the S. S. *United States* must have been well in the southern quadrants, especially as a number of vessels from 250 to 300 miles to the southward experienced light to moderate winds, with comparatively high barometric readings. From the 19th to the 25th there were no disturbances of any consequences over the ocean, although during part of that period a slight depression existed off the coast of northern Europe. On the 26th the Province of Quebec was surrounded by an area of low pressure of slight intensity, and on the same day a second low was central near Aberdeen, Scotland, where the barometric reading was 29.07 inches.

Neither of these disturbances was accompanied by heavy weather, and light to moderate winds prevailed over the entire ocean. During the next two days the European low remained nearly stationary in position, gradually filling in. On the 28th reports were received from vessels not far from the French coast showing that moderate westerly gales prevailed in that section, although a number of other craft not far away encountered only moderate winds.

The number of days on which fog was reported was considerably below the normal on the Banks of Newfoundland and over the northern steamer lanes, while fog was somewhat more frequent than usual off the Virginia and North Carolina coasts, as well as in northern European waters.

### NOTES ON WEATHER IN OTHER PARTS OF THE WORLD.

*British Isles.*—In August, as in the two preceding months, the rarity of thunderstorms formed a continuing feature in a manner which was characterized in other respects by a large amount of disturbed weather. The general rainfall, expressed as a percentage of the average, was as follows: England and Wales, 85; Scotland, 86; Ireland, 81; British Isles, 86.—*Symons's Meteorological Magazine, Sept., 1919, p. 98.*

*France*<sup>1</sup>.—L'Orient, August 30, 1919. The coast of Brittany for miles north and south of here is strewn with wreckage thrown on shore during the great storm which prevailed yesterday. At Locqueltas a lifeboat and wreckage, apparently from an American merchant ship,

was washed ashore. The name of the boat could not be deciphered. The storm is abating today.—*N. Y. Eve. Post, Aug. 30, 1919.*

*Argentina.*—Buenos Aires, August 12, 1919. Efforts to transport passengers over the trans-Andine mule train route again have been abandoned on account of snow. Only mails are now being carried across the mountains.—*Washington Eve. Star, Aug. 13, 1919.*

*Australia.*—Melbourne, August 27, 1919. Heavy rains have fallen over the wheat belt of New South Wales and Queensland, [breaking a drought and] giving promise of heavy crops from those sections of the country.—*N. Y. Eve. Post, Aug. 28, 1919; [and Hobart, Tas., Mercury, Aug. 20, 1919].*

<sup>1</sup> See also note published in MONTHLY WEATHER REVIEW, July, 1919, p. 501.

### DETAILS OF WEATHER OF THE MONTH IN THE UNITED STATES.

#### CYCLONES AND ANTICYCLONES.

The great majority of the *cyclones* which traversed the North American continent passed eastward between the Great Lakes and Hudson Bay. A single cyclone moved northeastward along the Atlantic coast and gave rise to the heavy local downpours as noted in a previous paragraph. None of the cyclones was of unusual intensity.

Eight *anticyclones*, mostly of the Alberta type and four of the North Pacific type, moved east-southeast during the month. The number and movement of both cyclones and anticyclones was closely in accord with the normal expectation.

#### THE WEATHER ELEMENTS.

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[Dated: Weather Bureau, Washington, Oct. 1, 1919.]

#### PRESSURE AND WINDS.

The distribution of the mean atmospheric pressure over the United States and Canada, and the prevailing direction of the winds for August, 1919, are graphically shown on Chart VII, while the means at the several stations, with the departures from the normal, are shown in Tables I and III.

August, like the preceding month, was without marked fluctuations in atmospheric pressure, and the high and low areas were of the usual summer type, frequently without distinctive progressive movement. Moderately high pressure dominated northern districts east of the Rocky Mountains during the first few days of the month and again the latter part of the first and the early portion of the second decades. West of the Rockies, particularly

near the Pacific coast, high pressure, usual to the summer season, prevailed almost continuously during the first half of the month, and it was only occasionally displaced in the latter half. During this period of the month in the districts to eastward of the Rocky Mountains pressure was highest over the southeastern States, although there was no marked change from the conditions normal to the period of the year.

Pressure was moderately low over southern districts during the early part of the month, although no distinctive storm center developed in that region until about the 12th, when falling pressure off the Florida coast indicated the development of a low area to the eastward, which, by the morning of the 13th, appeared as a storm of considerable energy off the Virginia coast. This storm moved to the Canadian maritime provinces within the following 48 hours, attended by high winds and local heavy rains along the immediate coast from the Carolinas to southern New England.

About the middle of the month low pressure moved into the northern border States to westward of Lake Superior, and during the following few days advanced eastward into New England and the Canadian maritime provinces, but lost energy as it approached the coast. This was quickly followed by another low area, which took a similar course and likewise dissipated as it moved toward the New England coast. The latter part of the month was without any material storm development, although near the close a considerable area of rain had overspread the districts to eastward of the Mississippi River.

The average pressure for the month was below the normal over a narrow area along the northern border from eastern Washington to Lake Superior and thence eastward to the Canadian maritime provinces and